

IN THE CLAIMS:

Please cancel claims 1-39 and 49.

40. (Original) Apparatus for use in tissue engineering, said apparatus comprising:

a scaffold structure being formed of a plurality of horizontal layers of material;

vertical walls forming each of said plurality of horizontal layers of material, said walls of each layer of said plurality of horizontal layers each having a height, each being horizontally separated from one another, and defining an orientation;

adjacent pairs of said vertical walls of each of said plurality of horizontal layers of material forming channels therebetween, said channels having a depth and a width created by said height of said walls and said horizontal separation of said adjacent pairs of said vertical walls, respectively;

adjacent layers in said plurality of horizontal layers of material being in different orientations to one another wherein said orientation defined by adjacent ones of said each layer of said walls of said plurality of horizontal layers differ from one another, said different orientations providing a group of cross-points to allow adhesion between said adjacent layers and providing interconnectivity between said channels throughout said scaffold structure.

41. (Original) Apparatus for use in tissue engineering according to claim 40 wherein said material forming said scaffold structure is a polycaprolactone filament.

42. (Original) Apparatus for use in tissue engineering according to claim 40 wherein said material forming said scaffold structure is a polycaprolactone/hydroxyapatite composite filament.

43. (Original) Apparatus for use in tissue engineering according to claim 40 wherein said vertical walls have a linear shape.

44. (Original) Apparatus for use in tissue engineering according to claim 40 wherein said vertical walls have a curved shape.

45. (Original) Apparatus for use in tissue engineering according to claim 40 wherein said orientation of said walls is a lay-down pattern of linear shaped walls for progressive layers of said plurality of horizontal layers of material with respect to said lay-down pattern for a first horizontal layer.

46. (Original) Apparatus for use in tissue engineering according to claim 45 wherein said orientation of said walls is in a lay-down pattern of $0^{\circ}/90^{\circ}$.

47. (Original) Apparatus for use in tissue engineering according to claim 45 wherein said orientation of said walls is in a lay-down pattern of $0^{\circ}/60^{\circ}/120^{\circ}$.

48. (Original) Apparatus for use in tissue engineering according to claim 45 wherein said orientation of said walls is in a lay-down pattern of $0^{\circ}/72^{\circ}/144^{\circ}/36^{\circ}/108^{\circ}$.